

CLAIMS

1 1. (previously presented) A method for use in wireless equipment, the method comprising
2 the steps of:
3 receiving user channel transmit power information from base stations involved in a soft handoff
4 with user equipment; and
5 receiving information from the user equipment, the information received from the user
6 equipment comprising a value representative of an excess signal-to-noise ratio determined by the user
7 equipment as the amount by which a signal-to-noise ratio value of one or more user channel signals
8 received at the user equipment exceeds a target signal-to-noise ratio value;
9 wherein the wireless equipment determines a reference user transmit power level for use by the
10 base stations as a function of the received user channel transmit power information and the received
11 information from the user equipment.

1 2. (canceled)

1 3. (previously presented) The method of claim 1 wherein the information received from the
2 user equipment comprises a value representative of the excess signal-to-noise ratio of a user channel
3 signal received from one of the base stations that is stronger than the user channel signal received from
4 another of the base stations.

1 4. (currently amended) A method for use in wireless equipment, the method comprising the
2 steps of:
3 receiving user channel transmit power information from base stations involved in a soft handoff
4 with user equipment; and
5 receiving information from the user equipment, wherein the information comprises an identifier
6 of a base station with a received signal at the user equipment that is stronger than the received signal of
7 other base stations and a signal-to-noise ratio value of the signal received from the identified base station;
8 determining a downlink reference power from the received user channel transmit power
9 information and from the base station identifier and the signal-to-noise ratio value in the received
10 information from the user equipment; and
11 transmitting the determined downlink reference power to the base stations.

1 5. (currently amended) [[A]] The method of claim 4 wherein the signal-to-noise ratio value
2 represents an excess signal to noise ratio value determined as the amount by which the signal-to-noise
3 ratio value of the signal received from the identified base station exceeds a target signal-to-noise ratio
4 value.

1 6. (currently amended) A method for use in wireless equipment during a soft handoff of
2 user equipment with a number of base stations, the method comprising the steps of:
3 identifying, at the user equipment, a base station with a received signal at the user equipment that
4 is stronger than the received signal of one or more other base stations; and
5 calculating, at the user equipment, a signal-to-noise ratio value of the signal received from the
6 identified base station; and
7 transmitting the identity of the identified base station and the calculated signal-to-noise ratio
8 value from the user equipment to a control point of a wireless system, wherein the calculated
9 signal-to-noise ratio value represents an excess signal-to-noise ratio value determined as the amount by
10 which the signal-to-noise ratio value of the signal received from the identified base station exceeds a
11 target signal-to-noise ratio value.

1 7. (original) The method of claim 6 wherein the control point is a common control point.

1 8. (canceled)

1 9. (previously presented) Apparatus for use in wireless equipment, the apparatus
2 comprising:
3 a receiver for receiving user channel transmit power information from base stations involved in a
4 soft handoff with user equipment, and receiving information from the user equipment; and
5 a processor for determining a reference user transmit power level for use by the base stations as a
6 function of the received user channel transmit power information and the received information from the
7 user equipment, wherein the information received from the user equipment comprises an excess
8 signal-to-noise ratio value determined as the amount by which a signal-to-noise ratio value of one or
9 more user channel signals received at the user equipment exceeds a target signal-to-noise ratio value.

1 10. (canceled)

1 11. (previously presented) The apparatus of claim 9 wherein the information received from
2 the user equipment comprises a value representative of the excess signal-to-noise ratio of a user channel
3 signal received from one of the base stations that is stronger than the user channel signal received from
4 another of the base stations.

1 12. (currently amended) Apparatus for use in wireless equipment, the apparatus comprising:
2 a transceiver for (a) receiving user channel transmit power information from base stations
3 involved in a soft handoff with user equipment, (b) receiving information from the user equipment,
4 wherein the information comprises an identifier of a base station with a received signal at the user
5 equipment that is stronger than the received signal of one or more other base stations and a
6 signal-to-noise ratio value determined by the user equipment for the user channel signal received from
7 the identified base station, and (c) transmitting a downlink reference power to the base stations; and
8 a processor for use in determining the downlink reference power from the received user channel
9 transmit power information and from the base station identifier and the signal-to-noise ratio value in the
10 received information from the user equipment.

1 13. (previously presented) The apparatus of claim 12 wherein the signal-to-noise ratio value
2 represents an excess signal to noise ratio value determined as the amount by which a signal-to-noise ratio
3 value measured by the user equipment for the user channel signal received from the identified base
4 station exceeds a target signal-to-noise ratio value.

1 14. (currently amended) Apparatus for use in wireless equipment during a soft handoff with
2 a number of base stations, the apparatus comprising user equipment having:
3 a processor for use in (a) identifying a base station with a received signal at the user equipment
4 stronger than the received signal of one or more other base stations, and (b) calculating a signal-to-noise
5 ratio value for the user channel signal received from the identified base station; and
6 a transmitter for transmitting the identity of the identified base station and the calculated
7 signal-to-noise ratio value to a control point of a wireless system, wherein the calculated signal-to-noise
8 ratio value represents an excess signal-to-noise ratio value determined as the amount by which a
9 signal-to-noise ratio value associated with the received signal from the identified base station exceeds a
10 target signal-to-noise ratio value.

1 15. (original) The apparatus of claim 14 wherein the control point is a common control
2 point.

1 16. (canceled)

1 17. (currently amended) A transmission frame representing data embodied in a wireless
2 transmission signal transmitted from user equipment to at least one base station, the transmission frame
3 comprising:

4 a first portion of a field comprising at least one bit for conveying data representative of an
5 identifier for identifying a base station whose received signal at [[a]] the user equipment is stronger than
6 signals received at the user equipment from one or more other base stations; and

7 a second portion of the field comprising at least one bit for conveying data representative of a
8 signal-to-noise ratio value of the received signal from the identified base station at the user equipment,
9 wherein the signal-to-noise ratio value represents an excess signal-to-noise ratio value determined as the
10 amount by which the signal-to-noise ratio value of the signal received from the identified base station
11 exceeds a target signal-to-noise ratio value.

1 18. (original) The transmission frame of claim 17 wherein the transmission frame is
2 conveyed via a radio resource control based protocol.

1 19. (original) The transmission frame of claim 17 wherein the transmission frame is
2 conveyed via physical layer signaling.

1 20. (previously presented) The method of claim 3, wherein the received information from
2 the user equipment comprises a value representative of the excess signal-to-noise ratio for the strongest
3 received user channel transmit power signal.

1 21. (previously presented) The method of claim 1, wherein:
2 the base stations use the reference user transmit power level during a fast power control loop;
3 the user equipment determines the reference user transmit power level in a slow control loop; and
4 the fast power control loop is implemented multiple times for each implementation of the slow
5 control loop.

1 22. (previously presented) The method of claim 4, wherein:
2 the base stations use the determined downlink reference power during a fast power control loop;
3 the user equipment determines the determined downlink reference power in a slow control loop;
4 and
5 the fast power control loop is implemented multiple times for each implementation of the slow
6 control loop.

1 23. (new) The method of claim 4, wherein the downlink reference power is determined by
2 summing (i) the user channel transmit power for the identified base station and (ii) a value based on the
3 signal-to-noise value.

1 24. (new) The apparatus of claim 12, wherein the processor is adapted to determine the
2 downlink reference power by summing (i) the user channel transmit power for the identified base station
3 and (ii) a value based on the signal-to-noise value.

1 25. (new) A method for use in wireless equipment, the method comprising the steps of:
2 receiving user channel transmit power information from base stations involved in a soft handoff
3 with user equipment; and

4 receiving information from the user equipment, wherein the information comprises an identifier
5 of a base station with a received signal at the user equipment that is stronger than the received signal of
6 other base stations and a signal-to-noise ratio value of the signal received from the identified base station;
7 determining a downlink reference power from the received user channel transmit power
8 information and the received information from the user equipment; and
9 transmitting the determined downlink reference power to the base stations, wherein:
10 the base stations use the determined downlink reference power during a fast power
11 control loop;
12 the user equipment determines the determined downlink reference power in a slow
13 control loop; and
14 the fast power control loop is implemented multiple times for each implementation of the
15 slow control loop.